

### Exhibit A-Attachment III Scope of Work–Change Requirements

The use of headings of titles throughout this exhibit is for convenience only and shall not be used to interpret or govern the meaning of any specific term, function, or activity.

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## 1. Change Requirements

- a. The programs administered in this contract will be dynamic, changing programs requiring numerous changes to the CD-MMIS Operation. A high emphasis is placed on the development of a system having the capability to implement such changes in an orderly and timely manner.
- b. The Department recognizes that the scope and complexity of changes will vary widely. The Department requires adequate assurance that a given change has been correctly applied. Department approval of change documents and related monitoring efforts will reflect this policy.
- c. The Department reserves the right to require the Contractor to contract with a Department-approved Independent Verification and Validation (IV&V) contractor for the development and/or implementation of large/complex system changes. The IV&V shall be reimbursed according to the Cost Reimbursement provisions of the contract.
- d. The Contracting Officer may at any time, within the general scope of the contract, by written notice, make changes to the CD-MMIS requirements. The Department will utilize a formalized process to notify the Contractor on an ongoing basis of changes to be made to the CD-MMIS. This process shall make use of the following five (5) documents:
  - 1) Dental Operating Instruction Letter (DOIL) - This document will be utilized to notify the Contractor of changes and clarifications made to the Medi-Cal Dental programs' policies. This document will include instructions to the Contractor regarding the changes required, and language to be used by the Contractor in issuing provider bulletins or provider manual updates. This document will also be used to initiate various ongoing changes required of the Contractor throughout the contract, the performance of which falls within the fixed contract price;
  - 2) System Development Notice (SDN) - This document will be utilized to notify the Contractor of system changes that require programming alterations to be performed by the Systems Group (SG);
  - 3) Problem Statement (PS) - This document will, in some cases, generate corrections/modifications to CD-MMIS programs or Erroneous Payment Corrections (EPCs);
  - 4) Change Order - This document alters work to be performed by the Contractor and is described in Exhibit E, Additional Provision 19; and
  - 5) Miscellaneous Change Document (MCD) – This document will generate minor corrections/modifications per project, report, etc.

- e. The Contractor shall process, track, and report status of DOILs, SDNs, MCDs, PSs, and Change Orders. This reporting occurs weekly.

## **2. Contractor's Obligation to Implement**

The Contractor shall be required to make changes mandated by the Contracting Officer. In the case of mandated changes by policy, regulation, statute, or judicial interpretation, the Contracting Officer may direct the Contractor to immediately begin implementation of any change. In the case of SDNs or Change Orders, (except as limited by review of State and federal control agencies), if so directed by the Contracting Officer, the Contractor shall be obligated to implement the required changes with concurrent negotiations of either SG hours or price revisions taking place. In those cases, SG work shall commence immediately, prior to the Contractor's response to the SDN.

## **3. Contractual Responsibilities**

The Contractor is required to perform all activities associated with the requirements of this contract and CD-MMIS during the life of the contract. These responsibilities, both manual and automated, are defined throughout this contract. Compensation for this work will be made in accordance with Exhibit B-Attachment I, Special Payment Provisions. Several of these activities are to be bid in the Contractor's prices for adjudicated claim service lines (ACSLs) and Treatment Authorization Requests (TARs), and not the SG. These include, but are not limited to:

- a. All quality management responsibilities;
- b. Applying updates to all subsystem files or tables and the addition of new codes or coding structures;
- c. Performing a second verification prior to any new or updated data being used in production. Another staff person shall perform this second verification other than the individual(s) who initially input the data. Results of this second verification shall be documented in a log or report and be available to Department monitoring staff;
- d. Maintaining the computer operating system or system utilities, installing and maintaining licensed proprietary products or data base systems, and maintaining or operating equipment;
- e. Modifying all application programs and manual procedures needed to bring the Contractor into compliance with existing contract responsibilities;
- f. Communicating with the Department on operating system modifications, system improvements, and emergency production changes;

- g. Providing operations support to handle production-related failures, job control language (JCL) problems, and perform and/or coordinate all recovery procedures;
- h. Correcting all errors to CD-MMIS due to implementation of any change documents; and
- i. Working closely with the SG to ensure that their activities are compatible with CD-MMIS operations, and their work represents the best method to perform the task.

Refer to the following Exhibit A-Attachment III, Change Requirements, Additional Systems Group Responsibilities section for additional activities to be performed by the SG management and administrative structure and included in the SG rates.

#### **4. Systems Group**

##### **a. Systems Group Responsibilities**

- 1) While the Contractor's responsibilities in Exhibit A- Attachment II, Operations are defined throughout the contract, work to be performed by the SG is limited to only that provided in this section. Under no circumstances shall technical staff and supervisors assigned to SG work on activities not specified in this section. Precluded activities include work required under contractual responsibilities, work related to other contracts or Contractor's internal operation, the Takeover, or Turnover work requirements, maintenance of the computer operating system, normal production processing, maintenance of systems documentation, maintenance to the computer operations system, the setup or running of programs and correction of all errors to CD-MMIS.
- 2) The purpose of the SG is twofold: (a) To design, develop, and implement Department-required modifications to the CD-MMIS. This includes all Department-initiated modifications and may, at the Department's sole discretion, include Contractor-initiated changes if the Contracting Officer believes implementation of those changes by the SG is in the best interest of the Department, and (b) To provide technical support for the Problem Correction System (PCS) detailed in Exhibit A-Attachment II, Operations, Quality Management (QM) Operations section. The PCS is a method to identify and resolve operational problems within the CD-MMIS, from the identification and on-line entry of the problem statement to final resolution.
- 3) The SG will resolve all emergency application programming problems. The SG shall notify the Department of any emergency programming maintenance performed within twenty-four (24) hours of its occurrence. The notification shall state the nature of the problem, where it was located, when it was discovered, what caused the

problem, by whom it was fixed, and whether the fix was temporary or permanent. The data will also be entered into the PCS as a separate problem statement. If the fix was temporary, the Contractor shall specify when the permanent fix will be accomplished and shall provide written documentation to the Department of the above information within seventy-two (72) hours of the event's resolution. In addition, the Contractor shall be responsible for updating the Change Control Log and for complying with all data processing, documentation, and trouble-reporting requirements specified in Exhibit A-Attachment II, Operations, Data Processing and Documentation Responsibilities.

- 4) Data shall be collected on the emergency programming fixes to identify if problems are occurring in patterns or trends. Data shall be reported to the Department on a monthly basis.
- 5) The Department shall, in cooperation with the Contractor, exercise full control over the work to be performed by the SG. Project priorities will be set by the Contracting Officer and will be communicated to the Contractor. The Contractor shall notify the Contracting Officer when modifications in priority have a material impact on scheduling or when staff re-allocation is needed to meet a planned implementation date. The Contractor shall be responsible for assuring that the SG performs quality work in a timely manner.
- 6) The SG shall perform the following design, development, and implementation activities:
  - a) System improvements and modifications to existing application programs and manual procedures that provide greater operational effectiveness or efficiency to those programs, procedures, or the CD-MMIS as a whole. Each modification to the CD-MMIS database and applications programs and file structures shall include the Contractor's consideration regarding whether changes to all applications programs are necessary, and whether changes to reports are needed. If the modification calls for creating a table, the Contractor shall provide for program access to the table through the CD-MMIS via the appropriate Reference File Subsystem;
  - b) Major Development – New functional applications and procedures of CD-MMIS. This includes the replacement of an existing program or procedure with a new one as well as the addition of a new program or procedure;
  - c) Edit/Audit Development – Applications programming related to the revision of existing, or the addition of new edits/audits;
  - d) Report Modifications – Maintenance or revision of existing or development of new reports;

- e) Programming required for correction or resolution of PSs identified in the PCS. This includes changes to CD-MMIS application programs and programming changes related to EPCs;
- f) Corrective Action Plan (CAP) preparation, implementation of Department-approved CAP(s), and generation of correction notices pertaining to application programs;
- g) Acceptance and support for all newly implemented systems or modifications of existing programs; and
- h) Programming support for the Department's ad hoc report requests.

b. Systems Group Organization

- 1) The SG shall be fully staffed beginning one week before the assumption of TAR processing through the duration of this contract.
  - a) The Contractor shall employ a SG organization comprised of:
    - i. Thirty (30) technical staff full-time equivalents (FTE);
    - ii. One (1) system director;
    - iii. Five (5) project managers;
    - iv. Staff to ensure proper management control of the SG's work activities, including staff-to-first-line supervisor ratio of no greater than eight (8) to one (1);
    - v. Maintenance of updating the systems documentation and supporting the documentation requirements of the contract; and
    - vi. Adequate clerical staff to meet and perform the clerical and word processing support needs of the SG.
  - b) The organization must, at a minimum, adhere to the job descriptions, staffing levels for FTEs, and staff levels described in this Exhibit A – Attachment III, Change Requirements.
  - c) The Department recognizes that the nature of the required functions of the SG may change as the contract evolves and reserves the right to revise the staffing levels of the SG during the life of the contract. Additionally, the Contractor may propose changes to the staffing mix, to be approved by the Department. The Contractor shall be responsible for ensuring that the SG coordinates with the Department on all of its work responsibilities.

- d) At the Contracting Officer's discretion, the Contractor must be able to change the staffing configuration, providing up to fifteen (15) additional FTE technical staff members beyond the staffing of thirty (30) FTEs, or decrease the number fifteen (15) FTEs or fewer, at the same bid rate per classification as the thirty (30) FTEs. The Department fully expects that at least fifteen (15) FTEs will be required for the SG for the life of the contract. However, the Department retains the right to negotiate a decrease in size of the SG below fifteen (15) FTEs, if experience demonstrates that SG activities can be successfully accomplished with fewer than fifteen (15) FTEs. In the event the SG size increases or decreases, or the mix changes, a thirty (30) day notice shall be given to the Department. If the workload requires more personnel than is available through the SG, or if the workload may be met in a timely manner by using a highly specialized or commercially available application, the Department may use the Change Order process, as specified in Exhibit E, Additional Provisions 19, to accomplish this work, or the Department may have the Contractor temporarily assign additional non-SG systems analysts or programmers to the SG.
- e) The SG staff level of thirty (30) FTEs shall be maintained at all times unless the Department authorizes specific exemption. When the Contractor removes a staff person from assignment to the SG, that staff person shall not be reassigned to the SG without Department approval. The Contractor shall submit all required information on a new, qualified nominee as required in Exhibit E, Additional Provision 12, Contractor and Subcontractor Employees. Additionally, the Contractor shall request from the Department, approval of every individual to be assigned to the SG as a manager, technical, or supervising staff person and shall submit to the Department that individual's resume or application. The Department reserves the right to reject an individual being assigned to SG and require the Contractor to transfer or reassign specified SG employees. Staff in the SG will be assigned exclusively to the SG; there shall be no sharing of staff between the SG and Operations. The Contractor may, with approval of the Contracting Officer, temporarily reassign an individual with unique expertise to the SG or from the SG to Operations for the performance of a specific project when such assignment will enhance implementation of a specified project. Individuals temporarily assigned to the SG will be paid at the hourly rate for that individual's classification or be paid at a negotiated rate if that individual exceeds those qualifications. SG staff temporarily reassigned to Operations shall not be paid by the SG payment mechanism.
- f) The staff level for the SG classifications shall be based on one thousand eight hundred (1,800) hours per FTE per contract phase

(one-hundred and fifty (150) hours per month), except for the first phase, as opposed to actual positions.

## **5. Additional Systems Group Responsibilities**

### **a. General**

- 1) Acknowledge receipt of SDNs, MCDs, and PSs from the Contractor or Department within two days;
- 2) Ensure document control, adherence to required timeframes, and status of reports to the Department for each SDN, PS, MCD, and contractor-initiated change. Reports shall be produced weekly and shall include, at the minimum, the following information:
  - a) Status of the implementation of change (i.e., what phase the change is in (use SG phases as a guide);
  - b) Projects implementation date. This should indicate whether any adjustments have been made from the original projects implementation date;
  - c) Any anticipated implementation problems;
  - d) Names of assigned SG staff;
  - e) Notice of staff assignment changes; and
  - f) Usage of hours at the detailed and summary levels.
- 3) Disseminate information on changes to CD-MMIS to all parties impacted by the change;
- 4) Update all tables, files, and manuals that are impacted by the change. All table updates shall be performed on a daily basis to provide continuous and current table information;
- 5) Add new codes to subsystem files;
- 6) Accept and support all newly implemented systems or modifications of existing programs;
- 7) Maintain and update the DED;
- 8) Ensure that all new data elements are properly documented and entered into the DED. The DED shall be "active" which means that all elements in a program must be entered into the DED before the program can compile. The CD-MMIS DED shall be a tool to assist the Contractor and Department staff in researching the system to identify



and fix system problems and to make programming changes pursuant to SDNs and enhancements. All data elements are to be consistent with other terminology including common business names and descriptions;

9) Provide recommendations for improvement to the DED based on comments solicited by SG and Department staff;

10) Documentation Specialists support staff shall be included in the thirty (30) SG staff to meet the contractual requirements related to systems documentation. At a minimum the specialists shall be responsible for:

- a) Maintaining a library of complete system documentation for all systems in production. The specialists will maintain the accuracy and organization of the documentation library by ensuring that system changes are promptly and correctly documented; and
- b) Developing all new or changed documentation. It shall be the Contractor's responsibility to ensure documentation accuracy, and to provide aid to the Specialist in producing, editing, rewriting, and maintaining the documentation.

11) Administrative support for timely response to EPCs and PSs;

12) Clerical support staff including all word processing;

13) Access to CRTs/PCs, test and production files, and libraries;

14) Computer resources to sufficiently support SG activities;

15) Portable personal computers with dial-up capabilities to allow SG staff to perform emergency fixes off-site during non-working hours without requiring travel to the CD-MMIS facility; and

16) All other office and administrative support required to perform SG activities (i.e., photocopying, filing, answering telephones, scheduling meetings).

b. General CD-MMIS Operations Specialist/Liaison

- 1) In addition to the thirty (30) FTE technical staff, the Contractor shall assign one (1) dedicated FTE CD-MMIS operations specialist/liaison whose sole function shall be to provide consultation to the Department. This staff member shall not share any of the responsibilities that the Contractor's staff must perform to support the SG, such as the management, documentation, and administrative structure staff already included in the Contractor's bid rate for the SG.

- a) The CD-MMIS Operations Specialist/Liaison shall have the skills, knowledge, and ability to:
  - i. Effectively evaluate claims processing output results to determine system errors;
  - ii. Detect potential adverse impact(s) of system changes to recently enacted program policy prior to implementation;
  - iii. Identify and confirm the need for system modifications or improvements; and
  - iv. Analyze the alternative means for implementing the system change, including defining the method of change.
- b) Specific CD-MMIS claims processing skills, knowledge, and ability shall be acquired and developed within the first year of assignment to this position.
- c. Managerial
  - 1) Systems Group management shall be responsible for the following:
    - a) Initial analysis of all SDNs and SDN responses, including an assessment of the project commencement date and lower priority projects in preparation for preliminary time and cost estimates, to be delivered to the Department within fifteen (15) days of SDN;
    - b) All contract negotiations of SG hours and monitor priorities;
    - c) The timely completion of changes to the CD-MMIS and prevent obstacles to project completion;
    - d) Communicating with the Department on operating system modifications, enhancements, and emergency production changes;
    - e) Keeping the Department informed of the status of projects and any need to reassign staff prior to reassignment;
    - f) Working closely with all SG staff to ensure their activities are compatible with CD-MMIS operations and their work represents the best method to perform the task;
    - g) Conducting staff and administrative meetings;
    - h) Participate in project meetings. The Contractor shall provide at least one Systems Director and five SG project managers. One

(1) SG project manager must be a specialist in the IDMS database;

- i) Monitoring SG staff performance to ensure successful system maintenance and implementation of new development; and
- j) Developing and maintaining a technology architecture policy that meets the goals of the Department. The technology policy will be written in collaboration with the Department and will be periodically reviewed to meet changing business requirements. At a minimum, the technology policy will consider the vision for the CD-MMIS and a plan for migration of the system over time. The policy will also address operational issues, including project-level adherence to the technology policy and project-level compatibility with existing system architecture(s).

## **6. Systems Group Billing**

- a. Only the hours of the thirty (30) FTE technical SG staff, or any increased or decreased technical staff, is are billable to the Department. Hours for the support staff activities (e.g., managerial, supervisory, clerical, operations specialists/liaisons) are not billable, and their costs shall be included in the SG rates.
- b. Depending on the actual work performed, certain SG hours spent by the SG will be billable to the Department for payment. Other hours of SG work are not directly billable to the Department. Time spent on the following tasks or activities are billable to the Department:
  - 1) SDNs;
  - 2) MCDs;
  - 3) Contractor and Department initiated PSs, except those defined in item 6.c below;
  - 4) Ad Hoc Reports (the Department may request up to thirty-five (35) per calendar year at no cost to the Department);
  - 5) EPCs;
  - 6) Department-requested research/consultation shall be reported as DHS-Consult and shall not exceed the approved pre-authorized limit, as directed by the Contracting Officer;
  - 7) Hours shall reflect actual work performed based on the level of tasks equal to the technical level of the staff unless approved by the Contracting Officer;

- 8) Ongoing job-required training must be consistent with the employees' position and must be approved by the Contracting Officer.
- c. Time spent on the following tasks or functions is not billable to the Department:
  - 1) Implementation of modifications to bring the Contractor into compliance with existing contract responsibilities;
  - 2) Contractor requested research;
  - 3) PSs resulting from system emergency fixes;
  - 4) PSs resulting in oversight of previous change instrument;
  - 5) Research resulting from operations errors;
  - 6) Time needed to support normal system processing and on-going job set up;
  - 7) Time off of any nature; and
  - 8) Other training.

#### **7. Department's Right to Terminate**

The Department reserves the right to terminate the entire SG and seek other methods to assume its function with a one hundred and eighty (180) day advance written notice to the Contractor. In the absence of the SG, work normally assigned to SG may be performed through Change Orders as specified in Exhibit E, Additional Provisions 19.

#### **8. System Development Notice**

##### **a. Department Notice**

To initiate SG development activity, the Contracting Officer will issue an SDN to the Contractor. The SDN will define the change; identify the general functional requirements of the change; access the priority of the change; determine whether phases and deliverables shall be consolidated; and identify prior authorized hours, type of acceptance test required, required walkthroughs, and requested operational date(s).

##### **b. Department System Development Phase Responsibilities**

- 1) The Department is primarily responsible for the following phases of system development:

- a) Project Definition and Analysis (PDA) Phase - The initial PDA Phase involves identifying and confirming the need for a modification of the system or system improvement, analyzing the alternative means of implementing the change, and defining the method of change. Primary responsibility for the PDA Phase is the Department's; however, SG management, and CD-MMIS Operations Specialists/Liaisons shall participate in discussions with the Department regarding alternatives and their system impact. It is anticipated these meetings will take place on an informal and scheduled basis during the course of normal business.
- b) General Functional Requirements (GFR) Phase - The GFR Phase will provide a general systems approach to the problem/solution. The GFR Phase includes a general description of the various objectives of the change/modification and the general and specific desired results/solution. This will include:
  - i. A general description of the types of input information required by the system;
  - ii. A description of the policy requirements;
  - iii. A general description of the processing results required; and
  - iv. A general description of the system output, outlining the format and use.

The GFR shall be provided to the Contractor through the SDN process. SG staff and management shall also participate in the GFR Phase.

c. Department Review and Oversight

- 1) The Department may monitor any/or all stages of SG development. All deliverables shall be submitted to the Department for review and approval, except as otherwise specified in this contract. If the Contracting Officer determines that the Contractor has failed to properly document or implement changes or corrections made to CD-MMIS, the Contractor shall make any necessary corrections at the Contractor's expense. The Department has the right to consolidate phases and deliverables, as appropriate, for each SDN. Therefore, when the Department determines that a change to the system is simple and has limited system impact, the Department shall have the flexibility to authorize a "short form" SDN. The short form could mean shortening or combining the deliverable documentation. The management and administrative structure within the SG, when analyzing and responding to the SDN, shall determine if the SDN request merits an SDN short form. If it has been determined that a

short form will or can be used, the Contractor shall include with the formal SDN response letter a checklist that identifies which phases/deliverables can be combined and that describes/substantiates the limited system impact.

- 2) The Centers for Medicare and Medicaid Services (CMS) may request copies of deliverables and/or conduct on-site reviews.

## **9. Contractor Responses**

### **a. SDN Response**

- 1) The Contractor shall have fifteen (15) days, or more if authorized by the Contracting Officer, to respond to an SDN. In that response, the Contractor shall submit the following:
  - a) A preliminary estimate of the date when the project can begin in relation to projects currently scheduled for the SG;
  - b) An assessment of any lower priority projects that must be delayed for implementation of the project and the impact of the delay on the schedules of the lower priority projects. The Department reserves the right to postpone or terminate a project during any portion of a phase;
  - c) A preliminary time and cost estimate to assist the Department in project priority setting and staff allocation. This time and cost estimate shall include developmental costs.

### **b. Establishment of Hours**

- 1) Project hours will be based upon projected actual work hours exclusive of time off and administrative time. Project hours shall be established for each phase, unless otherwise directed by the Contracting Officer.
- 2) A key to the successful operation of the SG is the quality of the Contractor's estimates and supporting documentation. Therefore, the Contractor is required to utilize a project estimation methodology that is comprehensive, verifiable, and straightforward to permit detailed Department review of the estimate. The Department shall review project estimates and shall approve all estimates before work may begin.
- 3) The Contractor shall be responsible for providing estimates and adhering to those estimates. Phases that exceed the established and agreed upon estimates must be justified, or the invoices shall be cut back to the agreed upon hours, at the sole discretion of the Contracting officer.

- 4) The Contracting Officer may at any time alter the project scope through a revised SDN and/or cancel a project through a letter. The Contractor shall then have fifteen (15) days, or more if authorized by the Contracting Officer, to respond to the revised SDN in the format prescribed above.
- 5) Any SG assignment for which total project hours result in a cost to the Department greater than two-hundred thousand dollars (\$200,000) shall be subject to the approval of the State control agencies (i.e., the Department of Finance), and may be subject to Centers for Medicare and Medicaid Services (CMS) review requirements.

#### **10. Contractor System Development Phase Responsibilities**

##### **a. General Description of Phases**

- 1) The Contractor shall have primary responsibility for all technical processes, and products required for the three (3) phases of system design, development, and implementation:
  - a) Phase I - specific functional design, work plan development, and definition/preparation of systems and acceptance test criteria;
  - b) Phase II - technical system design, programming, testing, and education/training; and
  - c) Phase III - implementation and post-implementation review.
- 2) The Contractor shall, as deemed necessary by the Department, be required to perform any one or a combination of the non-technical system development phases, including but not limited to, PDA and GFR. The Contractor shall be required to provide walkthroughs on deliverables for all phases of system development, unless waived in writing by the Contracting Officer. Deliverables for these walkthroughs shall be delivered to the Department five (5) State workdays prior to the walk-through, and the sessions shall be limited to two (2) hours, unless prior Department approval is granted. Implementation approval walk-throughs shall be held no less than one (1) week prior to the scheduled operational date, unless prior Department approval is granted. If draft deliverables are used, final deliverables must be delivered to the Department within fifteen (15) days of the walkthrough approval.
- 3) The SG shall follow three specified phases in designing, developing, and implementing a computer software system change. The Contractor shall submit all required deliverables to the Department at the completion of each phase. The OMCP Data Library contains sample formats for the Specific Functional Design (SFD) and

Technical System Design (TSD). The three (3) phases are described in the following sections (10.b., 10.c., 10.d.).

- 4) Certain development projects undertaken in this contract will require the involvement of providers and provider associations in defining system requirements and testing. In those cases, the Contractor, in coordination with the Department, shall obtain provider involvement.
- 5) Each required deliverable in each phase shall meet contract documentation standards as specified in Exhibit A-Attachment II, Operations, Data Processing and Documentation Responsibilities section. The Contractor shall provide a minimum of three (3) copies to the Department. For any SDN deliverable or deliverable update, the Contractor shall prepare and submit to the Department, on a timely basis, all necessary updates to the CD-MMIS Detailed Design Documentation.
- 6) The format of all deliverables shall be approved by the Department. Once the Department has approved the format, the Contractor shall submit all deliverables in the Department approved format.

b. Phase I - Systems Design

All Deliverables under this Phase shall be submitted to the Department for review and approval. The system design deliverables shall include the following:

- 1) Specific Functional Design (SFD) – The Contractor shall describe the design approach in this document from which the technical staff shall produce programming specifications.
  - a) Deliverables - An SFD document shall contain:
    - i. A list of input files and data items to be used;
    - ii. Data item descriptions;
    - iii. Step-by-step process definitions, for both computer and manual processes, including a program-level design;
    - iv. Definitions of report contents at a data item level;
    - v. Descriptions of any other output;
    - vi. Data flow diagrams and process models to help users understand what is being done under the SDN;
    - vii. Timing and frequency of operation of the system;



- viii. Special considerations in developing the technical system design; and
- ix. Table Layout Descriptions
- b) Once the Department has formally approved the SFD document, the Contractor shall not change the SFD document without Department approval.
- 2) Work Plan Development – The Contractor shall develop a work plan that contains a detailed estimate of hours, dollars, and staffing levels for each phase as well as for the entire project.
  - a) Deliverable – The work plan shall provide a completion date and include a plan for performing the post implementation review. The work plan shall at a minimum include:
    - i. The tasks to be performed including a subdivision of the task into major subtasks and subtasks (logical increments of work not to exceed 160 staff hours or four elapsed weeks).
    - ii. Personnel hours, personnel classifications required, and other resources for each subtask summarized by major subtasks and tasks.
    - iii. Methods the Contractor will use to control work performance
    - iv. Problems anticipated and contingencies developed.
    - v. A schedule for the task in narrative and a Gantt Chart or equivalent.
- 3) Test Plan – The Contractor shall develop a detailed plan describing each of the program areas modified as a result of the system change and how the Contractor intends to verify that the system changes are operating as designed.
  - a) Deliverables – The test plan shall describe:
    - i. The change to be tested;
    - ii. The general information required;
    - iii. The input required to perform test. Include input that will perform expected fail test results;
    - iv. The process to generate results;
    - v. The expected results.

c. Phase II - Systems Design and Development

All Deliverables under this Phase shall be submitted to the Department for review and approval, including the following:

- 1) The Contractor shall produce program level specifications and an overall system design for use by programming and Operations staff in implementing the system. The overall design shall be based on the design given in the specific functional design, but will contain more detail.
  - a) Deliverables – The Technical System Design (TSD) document shall contain:
    - i. Overall system design showing each individual program and the inputs and outputs for each;
    - ii. Specifications of sufficient detail, including logic diagrams, to allow the programmer to begin developing programming code. This may include general system design program flowcharts, job/file flowcharts, and /or program logic flowcharts;
    - iii. File layouts for all input and output files for each individual program; and
    - iv. Detailed test matrix of all known test conditions/criteria developed by the Contractor and State staff to be used for stand-alone, parallel, stress, and volume testing for systems testing, acceptance testing, and/or the integrated test facility.
  - b) The Contractor shall maintain the TSD as a dynamic document that shall be updated to reflect changes as they occur.
- 2) Programming – The Contractor shall produce executable instructions based on the specifications developed in the TSD. In this step, each program specification will be converted into executable instructions and modified until these instructions are syntactically correct.
- 3) Testing – The Contractor shall produce individual test programs and a total test system, which shall assure the results desired for the system change and that shall develop the user organization methods and procedures needed to support the system. At a minimum this includes:
  - a) The individual programs shall be tested to ensure that the information is processed correctly. Individual program interaction tests and full system tests shall be performed respectively (including stress test). The Department and SG shall have access to the system-testing environment. The Contractor's manual

control procedures and the Department's user procedures will be developed and tested;

- b) Providing support for the Department to jointly or independently acceptance-test the change if required by the Department. The testing activities shall follow the outline provided in the Contractor's work plan, or the Contractor shall provide an explanation as to why there was a deviation from the proposed plan;
- c) Detailed test cases included items to be tested and pass/fail criteria;
- d) Acceptance testing (see Exhibit A-Attachment II, Operations, Quality Management (QM) Operations section) will consist of separate staff from SG. This staff shall not be under the direction of the SG but under the direction of Quality Management;
- e) Deliverables – The Test results review document shall contain:
  - i. Clearly define, uniquely identify, and independently schedule each test to be performed;
  - ii. Develop a method to conduct parallel tests of the CD-MMIS claims and TAR processing functions. The Contractor shall conduct the second test during the Department Acceptance Test period. The results of these tests shall be reviewed by the Department and shall serve as input to the Department's Acceptance Test decisions on Contractor readiness for system implementation;
  - iii. Define System Test documentation standards; provide for inclusion of initial and subsequent test results and storage of all test documentation in a central location in a manner easily accessible and retrievable by Department monitoring staff;
  - iv. Relate tests to CD-MMIS system design documentation and overall contract requirements.
- f) Review manual, clerical, and operating procedures. Validate Quality Management procedures for setting accuracy and error levels and for monitoring compliance;
- g) Validation of control procedures;
- h) Identify the number, classification, and names of key staff responsible for each test, including Contractor staff responsible for communication with the Department during System Testing;

- i) Actual test situations;
  - j) The format of test deliverables shall be approved by the Department. Once the Department has approved the format, the Contractor shall submit all deliverables in the Department approved format
  - k) Specify the criteria the Contractor will use in determining the completion of each System Test activity:
    - i. Summary of results;
    - ii. Run logs;
    - iii. Input and output file data that are formatted for easy review;
    - iv. Test reports, including before and after results;
    - v. File comparison generated as a result of parallel testing; and
    - vi. All backup documentation pertaining to each condition tested and shall appear directly following the page that describes the specific test condition. Back up documentation should reflect but not be limited to the test plan.
- 4) Education/Training – The Contractor shall prepare a comprehensive training plan for all personnel affected by system modification including provider community and Contractor staff. User personnel shall be trained in the system procedures and controls in preparation for system changes. The SG technical team leaders shall coordinate with provider training and publications specialists (who have primary responsibility for scheduling training, developing training syllabi, desk references, and other training materials and provider notification) and the Quality Management (QM) Unit, to develop the training courses as referenced in Exhibit A-Attachment II, Operations, Staff Training Requirements section.
- a) Deliverables – Education/Training documentation shall contain:
    - i. User procedure manual/manual updates, Detailed Design Documentation;
    - ii. Report layouts;
    - ii. Detailed user-training plan;
    - iii. System training guide and materials;
    - iv. Training of user personnel; and

- v. Provider community materials to prepare the provider community regarding modifications to the system. As determined by the Department, these materials may include:
  - A. Provider notices/bulletins;
  - B. Provider training plan;
  - C. Provider training guide and materials;
  - D. Training of providers;
  - E. Provider training manual; and
  - F. Table Layout Descriptions.

d. Phase III - Systems Implementation

All Deliverables under this phase, except program code, shall be submitted to the Department for review and approval.

- 1) Implementation - In this step, the system will be transferred into production status, replacing the previous system. The Contractor shall notify the Department before the change is scheduled for implementation and four (4) days after the implementation occurred. The Contractor shall monitor the change through the completion of no less than one monthly cycle. The Contractor shall notify the Department the number of monthly cycles to be monitored for approval. Any new procedures shall also be put into place at this time.

a) Deliverables – Implementation documentation shall contain:

- i. Computer operations instructions for the new system;
- ii. Complete system detail design documentation meeting contract standards to include:
  - A. Input and output file description;
  - B. Program narratives and listings;
  - C. Generalized program design; and
  - D. Overall system design.

- b) Program code as implemented. This is for Department review only;

- c) Updates to all deliverables unless otherwise specified, including the distribution of documentation updates as specified in this contract; and
  - d) System control turned over by SG to Operations.
- 2) Post-Implementation Review – The Contractor shall review the newly implemented system to determine if the delivered product measures up to the expected results. Review period shall be determined by the Contractor and approved by the Department. The project is reviewed to determine if the system's operational expectations have been met, the system development effort was performed efficiently, the cost and completion time were within the project estimates, and the system documentation is satisfactory.
- a) Deliverables – Post-Implementation documentation shall contain a post-implementation report. This report shall identify and explain the following:
    - i. How the review was performed (e.g., reports reviewed, and screens revised);
    - ii. Significant variances between expected user results and actual system performance;
    - iii. Variances between estimated and actual Design, Development, and Implementation (DD&I) costs;
    - iv. Variances between estimated and actual DD&I schedules;
    - v. Unanticipated system problems (include details of all reported incident reports associated with the SDN);
    - vi. Variances between implemented system design and design as shown in systems documentation;
    - vii. Recommendations for remedies for significant deficiencies; and
    - viii. An explanation of any miscompared files.

## **11. Scheduling of Systems Group Resources**

- a. The Contractor shall assign staff to projects according to a clearly defined Contractor-developed methodology that the Department has approved. The purpose of this methodology is to allow the Department to:
  - 1) Recognize which staff are available for assignment;

- 2) Verify the appropriateness of staff assignment in terms of specific job requirements;
  - 3) Assess the impact of staff assignment decisions on other projects;  
and
  - 4) Identify any need for additional resources over those currently available.
- b. The Contractor shall be responsible for proposing the assignment of staff to tasks according to the established methodology. The day-to-day supervision of these resources will be the Contractor's responsibility. However, the Department retains the right to reject any manpower scheduling/staff assignments proposed by the Contractor that are inconsistent with the objectives for the SG.

## **12. Project Management Assessing and Reporting**

- a. The Contractor shall utilize project management software as a tool for assessing and reporting project status to assist the Department in monitoring all SG activities. Use of a commercially available, equivalent software product may be used upon prior Department approval. The Department shall have on-line read access to this data and shall receive the data on electronic media and paper.
- b. The Contractor shall supply a methodology providing for a straightforward system of reporting project status (e.g., Gantt charts) to allow the Department to effectively monitor projects. In addition to the information listed below, current contract reports shall continue to be produced and distributed (refer to the OMCP Data Library). Status reports shall be produced every week and shall provide the following information for each project.

### **1) SDNs:**

- a) The identity of each SG staff person working on the project;
- b) The actual hours used for each phase of the project by SG staff persons and a total number of staff hours for the project as a whole;
- c) The estimated completion dates for each SDN phase;
- d) The revised estimated completion dates for each SDN phase, if any;
- e) The revised scheduled hours for each SDN phase, if any;

- f) The approved hours for each phase of the project by SG classification and a total number of approved staff hours for the entire project; and
- g) The schedule and hour variance, which is the difference between the projected schedule and approved hours and the actual schedule and hours.

2) For all other activities, a mechanism for:

- a) Planning, monitoring, and analyzing the work efforts and staff resources of the SG; and
- b) Tracking the progress and status of the projects assigned to the SG.

Both the Department and the Contractor will use the system to manage the SG. All work assigned to the SG will be included in the system. Areas shall include, but not be limited to:

- i. PSs;
  - ii. EPCs;
  - iii. MCDs;
  - iv. Emergency program fixes; and
  - v. Support for ad hoc report requests.
- c) Reporting workload priorities as set and approved by the Department.
- 3) The Contractor shall produce reports that provide a listing of all PSs, EPCs, MCDs, emergency program fixes, and any other work items under the responsibility of the SG. The reports shall be delivered to the Department, and shall include at a minimum:
- a) PS number, title, and short description of the problem;
  - b) Estimated completion date for each major milestone, work item, or project phase;
  - c) Revised completion date, if any;
  - d) Current status (most recently completed work item, milestone, or project phase);



- e) Name and classification of each SG staff person assigned responsibility for each work item, milestone, or project phase;
  - f) Number of hours each SG staff person worked on each work item, milestone, or project phase;
  - g) Number of hours for each phase of the project by SG classification;
  - h) Total number of staff hours for the entire project;
  - i) Schedule variance between projected hours to be worked and actual hours worked;
  - j) Priority category of the work item, milestone, or project phase;
  - k) Indication of whether an overpayment exists;
  - l) Estimated amount of overpayment, if any; and
  - m) Actual amounts recouped, if any.
- c. The reports shall be produced for open and active work items on a weekly basis. The reports for completed and closed work items shall be produced monthly and shall include only those items completed or closed during the month. Reports produced under this section shall be completed within three (3) days of the end of the reporting period.
- d. The Contractor shall maintain accurate records of all hours worked by each SG staff person as a source for the information contained in the report. All SG tracking reports produced under this section shall meet all reporting requirements as specified in Exhibit A-Attachment II, Operations, General Reporting Requirements section.
- e. Fundamental to project management is the establishment and revision of priorities. To fulfill this requirement, the Contractor must propose and follow a methodology that assists the Department in the orderly management of project priorities. This shall include advance reporting on the availability of SG staff for projects. Assessment of the impacts of priority changes shall be part of this methodology.

### **13. Problem Correction System Procedures**

- a. The SG shall accept, process, and resolve all PSs that require the analysis and correction of application programs and programming, and operation of an EPCS, which is necessary to select and reprocess claims that have been improperly paid.

- b. Problem statements will be submitted to Quality Management (QM) Operations initially, unless the Department determines that immediate action is required and submits the problem statement directly to the SG. Otherwise, the QM Unit is responsible for performing the initial analysis and preparing an interim response (for Department review and approval) and forwarding the PS and all background documentation to the SG for action.
- c. The SG shall perform the following PS-related activities pertaining to database and applications programs in accordance with this contract:
  - 1) CAP;
  - 2) Correction Notice including test results; and
  - 3) System and User documentation.
- d. The Department reserves the right to request a walk-through at any time during any phase.

#### **14. Erroneous Payment Correction System (EPCS)**

- a. The SG shall accept, process, and resolve all PSs and accompanying interim responses submitted by QM related to EPCs.
- b. The SG shall perform the following EPC-related activities in accordance with Exhibit A-Attachment II, Operations, Quality Management Operations, Payment Files Review Prior to Check Production section:
  - 1) CAP
  - 2) Sample Select
    - a) Sample Select – Produce a sample report of the claim lines selected for reprocessing/adjustment. This may be produced using the Erroneous Payment Select Generator as described in the Erroneous Payment Correction System (EPCS) manual or, if required, by special programming produced by the SG.
    - b) In developing its analysis of an erroneous payment situation, the SG shall select a sample of a minimum of fifty (50) claims lines.
    - c) The SG shall submit the analysis and sample select to the Department. The Department will review and approve or disapprove the SG's finding of error. If the Department disapproves the analysis and sample select, the SG shall determine from the Department the existing problem areas, and redevelop and resubmit the analysis and sample select.

## 3) Final Select

- a) Upon Department approval of the analysis and sample select, the SG shall complete the following processing steps:
  - i. Final Select – The final select will be analyzed to assure that the original select parameters were correct. In most cases, the final select will have to be further refined, usually by eliminating claims. Once Department staff are assured that the claims remaining in the select are the only ones involved in the problem, those claims will be prepared for daily/weekly processing; and
  - ii. Propose Daily and Weekly Processing Edits and Audits -- Propose to Department staff which edits and audits should be on or off for correctly reprocessing and/or adjusting claim lines through the daily and weekly processes.
- b) The Department and the SG shall determine requirements for adjustment volumes to be processed by checkwrite based on potential provider and system impact. The Department will confirm, in writing, the adjustment volumes to be processed by checkwrite and the provider, and a schedule showing the processing date for adjustments by pay period.
- c) It may be necessary for the SG to refine the sample select numerous times in order to accurately identify all affected claims.

## 4) Erroneous Payment Correction Implementation

The SG shall complete the processing of the selected claim lines through the production system to effectuate the necessary adjustments. This shall include all manual and automated processing required to correct the erroneous payment. The SG shall produce a series of reports that identifies adjusted claims and volume as required/described in the EPCS manual.

## 5) Erroneous Payment Completion Notification

The SG shall prepare an Erroneous Payment Completion Notification and forward it to the Department for review and approval. It shall include documentation of corrections/adjustments and collection of funds from the provider (e.g., program language change, copy of the report validating adjustment, other documentation of correction).

## 6) Provider Bulletins/Letters

Prior to any final adjustment, the SG shall forward to QM any information for the preparation of QM provider bulletins or letters to advise providers of the EPC reprocessing/adjusting.

**15. Transfer to CD-MMIS Operations**

The Contractor's Operations staff shall be responsible for the transfer of newly developed system components from the SG to CD-MMIS Operations. When new components have been completed by the SG and approved by the Department, installation and operational responsibility for these components shall be transferred to the Contractor's Operations Responsibilities and the components will be considered implemented. Thereafter, the production of all reports and other output from the implemented system will no longer be the responsibility of the SG.

**16. Contractor-Initiated Changes and Emergency Fixes**

- a. All Contractor-initiated changes shall be proposed to the Department prior to implementation, and shall be subject to written approval by the Contracting Officer. Each proposed change submitted to the Department will include a description of the change and identify the general functional requirements necessary to complete the proposed modification. Upon receipt of the Contracting Officer's approval, the Contractor shall proceed within the Contractor phase and deliverable structure in accordance with this contract.
- b. The Contractor shall provide the Department with the specified deliverables, each subject to approval by the Contracting Officer. The Department reserves the right to alter, delay, or cancel implementation of any change.
- c. The only exception shall be emergency fixes performed by the Contractor to correct program and/or system failures (such as data exceptions) outside of normal State business hours. In such a case, the Contractor shall notify the Contracting Officer of the change on the first working day after the change and provide the items outlined above to the Department within five (5) days after the change has been completed. Any other exceptions shall require written approval from the Contracting Officer prior to the start of the given change.

**17. Documentation and Program Code Standards**

Whenever the SG or other Contractor staff makes a change to CD-MMIS, the Contractor shall conform to documentation requirements and upgrade all program codes to the standards required in Exhibit A-Attachment II, Operations, Data Processing and Documentation Responsibilities section of this contract.

**18. Quality Assurance Requirements for SG Performance**

The Contractor shall:

- a. Maintain responsibility for assuring that the SG performs quality work in a timely manner, and that the quality and performance for all SG staff are consistent with the skill level/classification being billed. SG staff failing to perform at the skill level/classification being billed shall result in invoices being denied and/or cut back, at the discretion of the Contracting Officer.
- b. Make any necessary corrections at the Contractor's own expense if the Contracting Officer determines that the Contractor has failed to ensure quality and performance.
- c. Develop and maintain Quality Assurance Documentation describing the methods by which the Contractor shall ensure that contract requirements are met and the ongoing process of improving the performance of the SG remains effective.
  - 1) The Contractor shall set internal standards for accuracy and timeliness of each task to be performed including a subdivision of the task into major subtasks and minor subtasks in order to monitor, evaluate and improve staff performance. Estimated hours to complete each task shall correspond with SG staff classification.
  - 2) Provide work instructions in situations where specific, detailed steps must be followed to assure quality.
  - 3) Submit to the Department upon takeover, a plan assessing what measures will be put in place to ensure the monitoring of quality and performance, and any corrective measures, if determined necessary.

Note: The procedures used to evaluate and improve staff performance shall be used as guidelines and include internal performance standards for SG staff. The Quality System Documentation shall be subject to Department review and approval.

The Contractor shall continuously monitor systems development methodology effectiveness to determine how system changes can more efficiently and effectively be integrated into CD-MMIS, and to achieve optimal SG performance. Monitoring activities shall include reviewing and enhancing software development methodologies, maintaining process documentation, developing metrics related to SG efficiency and effectiveness, capturing data regarding these metrics, analyzing the data, and enhancing development processes to improve productivity.

A report of the above monitoring activities, including assessment of systems development methodology and SG performance efficiency and effectiveness, and any recommendations for development methodology and process improvements, shall be submitted to the Department on at least an annual basis.

**EXHIBIT 3-1****Systems Group Job Titles and Staffing Levels**

This page lists the job titles and staffing level Full-Time Equivalents (FTE) for the Systems Group. The job descriptions are described in the following Exhibits 3-1.1 thru 3-1.8:

CLASSIFICATION	NUMBER OF FTEs
Data Processing Technician	1
Senior Systems Analyst	4
Senior Programmer Analyst	6
Systems Analyst	2
Senior Programmer	10
Programmer	3
IDMS Specialist	1
IDMS Data Dictionary Specialist	1
Documentation Specialist	2
Total	30 FTEs

The thirty (30) FTEs are based on eighteen hundred (1,800) hours per FTE per contract phase one hundred and fifty (150) hours per month. The monthly contract threshold hours will be calculated by multiplying the authorized number of FTEs for each classification by one hundred and fifty (150) (e.g., for the programmer classification the calculation would be thirteen (13) FTEs x one hundred and fifty (150) hours = one thousand nine hundred and fifty (1,950) FTE hours per month).

**EXHIBIT 3-1.1****Title: Data Processing Technician****Responsibilities:**

The incumbent, under general supervision, shall be responsible for performing a variety of less complex technical duties such as data management, procedure writing, writing job control language statements, preparing and submitting routine directions for processing data, performing program librarian functions, and doing other duties as required in support of the systems analysis, programming, and machine operations effort of an electronic data processing system, and performing other related work as required.

**Qualifications:**

Experience applicable to one of the following patterns may be combined on a proportional basis with experience applicable to the other to meet the total experience requirement.

Either:

Completion of at least two (2) years as a full-time student at a recognized college or university,

Or

One (1) year of work experience (full-time) performing tabulating machine operations or technician duties in operation, quality control, or scheduling on an electronic computer system,

Or

Successful completion of a programming curriculum given by a resident school which includes the study of system control parameters or job control language and at least two (2) hours of classroom instruction. (Partial completion of this requirement may not be combined with the other patterns to gain qualification.)

AND

The ability to effectively communicate orally and in writing, and the ability to work cooperatively with others.

**EXHIBIT 3-1.2****Title: Senior Systems Analyst****Responsibilities:**

The incumbent, under general supervision, shall work on the more complex data processing problems as a technical specialist. Duties shall include developing methods of applying computer technology to solve problems, conducting feasibility studies concerning problems with possible solutions involving EDP, developing data processing standards and procedures; other related work as required.

**Qualifications:**

Four (4) years of progressively responsible, full-time work experience above the trainee level in electronic data processing systems study, design, or programming (at least one (1) of the four (4) years of experience must have been spent working in a COBOL or Client server application development (such as C++, Java, VB, MS-SQL, Forte) environment; project responsibility for analyzing operational methods and designing computer systems to meet desired results; equivalent of graduation from college; ability to effectively communicate orally and in writing; ability to work cooperatively with others.

(Additional qualifying experience may be substituted for up to two (2) years (full-time) of the required education on a year-for-year basis)

**Desirable Qualifications:**

At least two (2) years, full-time, experience directly involved in the design and development of medical data processing systems.



**EXHIBIT 3-1.3****Title: Senior Programmer Analyst****Responsibilities:**

Under general supervision, works independently as a technical specialist on the most complex data programming duties with system analysis responsibilities. The Senior Programmer Analyst develops and implements complex programs to achieve desired results and does other related work as required.

**Qualifications:**

Four (4) years of full-time, progressively responsible experience in electronic data processing systems study, design, and programming (at least one of the four (4) years of experience must have been spent programming in COBOL or Client server application development (such as C++, Java, VB, MS-SQL, Forte) environment; project responsibility for analyzing operational methods and developing computer programs to meet desired results; equivalent to graduation from college; ability to effectively communicate orally and in writing; ability to work cooperatively with others.

(Additional qualifying experience may be substituted for up to two (2) years (full-time) of the required education on a year-for-year basis)

**Desirable Qualifications:**

At least two (2) years of full-time experience being directly involved in the design and development of medical data processing systems.

**EXHIBIT 3-1.4****Title: Systems Analyst****Responsibilities:**

The incumbent, under general supervision, may work independently on assigned systems analysis work, or participate with other analysts on system studies of a complex nature or broad scope. The Systems Analyst works on the analysis phase of the design, development, installation, and modification of large computer-based data processing and related systems and other related work as required.

**Qualifications:**

Three (3) years of full-time, progressively responsible experience above the trainee level in electronic data processing systems study, design, and programming, with at least one (1) year that included project responsibility for analyzing operational methods and designing computer systems to meet desired results (at least one of the three (3) years must have been spent working in a COBOL or Client server application development such as C++, Java, VB, MS-SQL, Forte) environment; equivalent to graduation from college; ability to effectively communicate orally and in writing; ability to work cooperatively with others.

(Additional qualifying experience may be substituted for up to two (2) years (full-time) of the required education on a year-for-year basis)

**Desirable Qualifications:**

At least one (1) year of full time work experience directly involved in the design and development of medical data processing systems.

**EXHIBIT 3-1.5****Title: Senior Programmer****Responsibilities:**

Under general supervision either:

- (1) Independently performs programming and analysis work or
- (2) Participates with other Senior Programmers on projects of a very complex nature or usually broad scope, and

Performs other related work as required.

**Qualifications:**

Three (3) years of progressively responsible experience working full-time above the trainee level in electronic data processing systems study, design, and programming, including project responsibility for analyzing operational methods and developing computer programs to meet desired results (at least one of the three (3) years must have been spent programming in COBOL or Client server application development such as C++, Java, VB, MS-SQL, Forte) environment; equivalent of graduation from college; ability to effectively communicate orally and in writing; ability to work cooperatively with others.

(Additional qualifying experience may be substituted for up to two (2) years (full-time) of the required education on a year-for-year basis).

**Desirable Qualifications:**

At least one (1) year of full-time experience directly involved in the design and development of medical data processing systems.

**EXHIBIT 3-1.6****Title: Programmer****Responsibilities:**

Designs applications programs and routines from program specifications; codes, tests, debugs, documents, and installs applications and routines; may assist in determining and analyzing the data processing needs of users, establishing the feasibility of computer solutions, and designing, monitoring and implementing systems, programs and routines; and may assist in the evaluation of proposed new or modified computer system hardware and software and the development, installation, and measurement of systems programs and does other related work as required.

**Qualifications:**

Either I

Eighteen (18) months of full-time programming experience (at least six (6) of the eighteen (18) months must have been spent programming in COBOL or Client server application development (such as C++, Java, VB, MS-SQL, Forte); education equivalent to graduation from college.

(Additional work experience as a programmer may be substituted for the education with six (6) months experience being equal to one (1) year of education (as a full-time student).

Or II

Eighteen (18) month of full-time programming experience (at least six (6) months of which will have been spent programming in COBOL or Client server application development such as C++, Java, VB, MS-SQL, Forte); completion of the requirements for a two-year degree in computer science or data processing (i.e., sixty (60) semester units or ninety (90) quarter units of which twelve (12) semester or eighteen (18) quarter units are comprised of information technology coursework);

Or III

Equivalent of a Bachelor's Degree in Computer Science (i.e., twenty-four (24) semester, or thirty-six (36) quarter units in information technology-related coursework);

Or IV

Successful completion of a recognized programmer apprenticeship, and experience in COBOL programming or Client server application development such as C++, Java, VB, MS-SQL, Forte;

AND

Ability to effectively communicate, orally and in writing, and the ability to work cooperatively with others.

**EXHIBIT 3-1.7****Title: IDMS Specialist/IDMS Data Dictionary Specialist****Responsibilities:**

Under general supervision, shall work on the more complex data processing problems as an IDMS technical specialist. Duties shall include developing and implementing complex IDMS programming duties with systems analysis responsibilities, such as developing methods of applying computer technology to solve problems, conducting feasibility studies concerning problems with possible solutions involving EDP, and developing data processing standards and procedures.

**Qualifications:**

Four (4) years (full-time) of progressively responsible work experience above the trainee level in IDMS data processing systems study, design, or programming, and responsibility on a project basis for analyzing operational methods, developing IDMS computer programs and designing computer systems to meet desired results, and the equivalent to graduation from college. At least one (1) of the four (4) years of experience must have been spent working or programming in a COBAL environment. (Additional qualifying experience may be substituted for up to two (2) years (full-time) of the required education on a year-for-year basis). Also, the ability to effectively communicate orally and in writing, and the ability to work cooperatively with others.

**Desirable Qualifications:**

At least two (2) years (full-time) of direct involvement with the design and development of Medicaid/Medi-Cal data processing systems.

**EXHIBIT 3-1.8****Title: Documentation Specialist****Responsibilities:**

The incumbent, under general supervision, shall be responsible for maintaining a library of complete system documentation for all systems in production. The specialist will maintain the accuracy and organization of the documentation library by ensuring that system changes are promptly and correctly documented. All new or changed documentation must be developed by the Documentation Specialist. The technical staff will aid the Specialist in producing, editing, rewriting, and maintaining the documentation.

**Qualifications:**

Two (2) years of college (as a full-time student) and two (2) years of work experience (full time) doing editing and editing and technical writing. Candidate must have experience in or familiarity with documentation of automated systems. Ability to effectively communicate orally and in writing. Ability to work cooperatively with others.